DRAFT FINDING OF NO SIGNIFICANT IMPACT (FNSI)
FOR THE WIDENING OF MARTIN ROAD
FROM RIDEOUT ROAD TO ZIERDT ROAD AT
REDSTONE ARSENAL, ALABAMA

This Environmental Assessment (EA) has been prepared in accordance with the National Environmental Policy Act (NEPA); the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508); Department of Defense (DoD) Directive 6050.1, *Environmental Effects in the United States of Department of Defense Actions* (US Department of Defense 1979); and 32 CFR 651, *Environmental Effects of Army Actions* (2002), which implements these laws and regulations and directs DoD and US Army officials to consider environmental consequences when authorizing or approving Federal actions. An Environmental Assessment(EA), which is incorporated herein by reference, has been prepared and analyzes potential environmental impacts from widening Martin Road to four lanes from Rideout Road to Zierdt Road, with upgrades to nearby infrastructure and to the installation access controls for Gate 7 at Redstone Arsenal, Alabama.

Background. On September 8, 2005, the Base Realignment and Closure (BRAC) Commission recommended a number of realignment actions at various DoD facilities, including RSA. These recommendations were approved by the President on September 15, 2005, and forwarded to Congress. The Congress did not alter the BRAC Commission's recommendations, and on November 9, 2005, the recommendations became law.

The NEPA evaluation of impacts of the BRAC recommendations for RSA are detailed in the *Final Environmental Assessment for Base Realignment and Closure, Installation Support, and Associated Future Master Planning Actions at Redstone Arsenal, Alabama* (BRAC EA) (AGEISS et al., 2006), which is hereby incorporated by reference into the EA. According to that document, as the BRAC recommendations are implemented, RSA will see a net increase of approximately 6,850 personnel to the current 28,000 personnel.

Martin Road is the major east-west thoroughfare, with entrance to and exit from the Installation to the west at Gate 7 and to the east at Gate 1. Gate 7 is one of the main entrance points onto RSA (Figure 1-1); Martin Road is a direct route from Huntsville International Airport. Transport of goods and personnel between the Huntsville International Airport and RSA will increase due to RSA gaining organizations from BRAC 2005. Also, construction of single- and multi-family residential and commercial developments along Zierdt Road and west along Martin Road outside of RSA contributes to increased traffic flow and congestion.

A large portion of civilian and military personnel offices, MSFC facilities, and two Redstone Technical Test Center (RTTC) Test Areas are located on Martin Road. Traffic counts conducted in 2006 and 2007 revealed that as many as 7,500 motor vehicles enter and exit RSA through Gate 7 and travel along Martin Road during a typical workday (Tom Richardson, DPW-Engineering Division. Pers. Comm., 2009; RKA, 2007). Based on the BRAC EA projections, the most widely used gates would be Gate 1, Gate 7, and Gate 9. At Gate 7, increases of 66 percent for inbound traffic and 69 percent for outbound traffic are projected, which are greater than for any other RSA gate (AGEISS et al., 2006). Therefore, implementation of the BRAC 2005 recommendations for RSA will have greater impacts at Gate 7 and to Martin Road. The US Army Garrison – Redstone, Directorate of Public Works (DPW), in conjunction with the US Army Military Traffic Management Command, has determined the present two-lane configuration of Martin Road west of the RideoutRoad/Martin Road interchange will be inadequate to serve RSA's future needs based on the projected traffic flow conditions and would pose a traffic safety hazard during peak traffic periods. The existing two-lane Martin Road bridge across Indian Creek was built in 2007, is in excellent condition, and will not need upgrade or replacement.

Redstone Arsenal is located in the Tennessee River Valley, where there is a high density of prehistoric archaeological sites. The prehistoric sites on RSA date from the earliest time of human occupation, the

Paleoindian (11,100 to 8,000 B.C.), to the Mississippian (A.D. 900-1700). As of 2008, 498 prehistoric archaeological sites had been identified. Of these, 218 have been recommended eligible for inclusion in the National Register of Historic Places (NRHP) (Redstone Arsenal, 2009b). The proposed limits of disturbance include two NRHP eligible archaeological sites.

Redstone Arsenal began as three contiguous military facilities: the Huntsville Arsenal, the Gulf Chemical Warfare Depot (GCWD), and the Redstone Ordnance Plant. These three facilities were constructed to manufacture, assemble, test, and store chemical munitions. Redstone Ordnance Plant was later renamed Redstone Arsenal; the other two installations were incorporated into Redstone Arsenal in 1949. The proposed limits of disturbance include two active ranges (Test Area-3, north of Martin Road, and Test Area-6, south of Martin Road), former World War II drop test ranges for proofing munitions, two MSFC Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) sites, four Resource Conservation and Recovery Act (RCRA sites), and two Potential Source Area sites. Additionally, the potential to encounter subsurface munitions exists.

Redstone Arsenal contains approximately 9,500 acres of wetland habitat. Forested wetlands represent nearly 70 percent of the wetlands at RSA (US Fish and Wildlife Service, 2002). These wetlands typically occur on floodplains. The proposed limits of disturbance include floodplain wetlands associated with Indian Creek.

Purpose and Need. Redstone Arsenal requires safe and timely travel for personnel and goods onto and within RSA. Widening of Martin Road, improving site access control at Gate 7, and upgrading area infrastructure are required to improve traffic flow and reduce traffic hazards during peak travel times following implementation of the BRAC recommendations and associated personnel increases.

Description of the Proposed Action: The Proposed Action is to widen Martin Road to four lanes from the western boundary of RSA at Zierdt Road to Rideout Road to the east (Figure 2-1) (approximately 2.75 miles) with upgrades to nearby infrastructure and to the installation access controls at Gate 7.

Widening of the road would include site clearing and preparation along the route, construction of a bridge over Indian Creek with expansion of the three existing culverts, new traffic signals, construction of a median between eastbound and westbound lanes within the Indian Creek floodplain and at the Anderson and Fowler Roads intersection, and demolition of the approximately 150-square foot guardhouse building at Gate 7. At Anderson Road, service roads would be constructed north and south of Martin Road to provide access to test areas and other facilities.

Existing overhead electrical service along Martin Road would be relocated within the proposed limits of disturbance. Additional sanitary sewer lines also would be aligned within this area. A new water main along the north side of Martin Road would replace the existing main.

Access control improvements would include construction of a new canopy and guard booths, an additional (third) inbound lane, a separate vehicle inspection canopy, and a new guardhouse and visitors center building. An active vehicle barrier for inbound traffic would be installed approximately 1,000 feet east of Gate 7. Fences at Test Area-3 and Test Area-6 would be relocated approximately 40 feet and 60 feet, respectively, off the existing Martin Road right-of-way.

The construction of the additional lanes of Martin Road would be performed in a "work-ahead" fashion, allowing construction activities for the new road to be performed from the existing and newly placed roadbeds. This method will avoid the placement of construction access roads in the wetland areas to the north and south of the road and minimizes the disturbance to known archaeological resources.

***Alternatives including the Preferred Alternative*:** Each of the alternatives except the No Action Alternative would have two subalternatives for location of the access control improvements and visitors center. Subalternative 1 would be to site the Gate 7 improvements north of Martin Road. Unexploded

ordnance (UXO) discoveries could preclude siting the improvements here. Subalternative 2 would site the Gate 7 improvements south of Martin Road. At this location, an NRHP eligible archaeological site could be impacted. Relocation of existing overhead electrical service, sanitary sewer lines, and new water main along the north side of Martin Road would occur under all the alternatives. The alternatives that are carried forward in the EA focus on an approximately 4,800-foot segment of Martin Road. The impacts of the alternatives are discussed in Section 3.0.

***Preferred Alternative*:** Alternative 1 proposes to add the two additional lanes to the south side of the existing Martin Road alignment within the proposed limits of disturbance (Figure 2-1). A new bridge spanning Indian Creek would be built immediately to the south of the existing bridge. Martin Road would be widened from two 12-foot wide lanes to four 12-foot wide lanes with eight-foot wide paved shoulders on each side of the road. Through an archaeological site (Section 3.3) and the wetland areas, the widened road would have an eight- to 12-foot wide paved median between the eastbound and westbound lanes. To accommodate intersections and cross traffic, a 24-foot wide paved median would be constructed in the vicinity of Anderson and Fowler Roads. The widened Martin Road would closely follow its existing alignment, with the centerline of the widened road fluctuating between the existing centerline and the existing north and south edges of pavement to avoid or minimize impacts to resources. Alternative 1 is the Preferred Alternative for implementation of the Proposed Action.

Alternative 2: This alternative would follow the same route as Alternative 1, but the road would be elevated on piers for approximately 800 feet east of the Indian Creek Bridge. This design would be incorporated to minimize impacts to an archaeological site (Section 3.3).

Alternative 3: This alternative would add two additional lanes to the north side of the existing Martin Road alignment within the proposed limits of disturbance (Figure 2-1). A new bridge spanning Indian Creek would be built immediately to the north of the existing bridge. Two MSFC CERCLA sites exist within the boundaries of this alternative.

Alternative 4: This alternative would construct two additional lanes in an arc to the north of Martin Road to minimize impacts to an archaeological site and to minimize hazardous and toxic materials and waste (HTMW) concerns (Sections 3.4 and 3.5, respectively).

This alignment was eliminated from further consideration. It is not in alignment with the existing road footprint, would cause further fragmentation of and a much greater impact to forested wetland resources, and it would bisect the Williams Spring Ecologically Sensitive Area, which provides habitat for the sensitive Tuscumbia darter (*Etheostoma tuscumbia*).

Alternative 5: Under the No Action Alternative, Martin Road would not be widened from Rideout Road to Zierdt Road, and the existing roadway would continue to be utilized as is. Improved access control measures at Gate 7 would not be implemented and infrastructure would not be upgraded.

The No Action Alternative is presented for comparison as required by CEQ NEPA regulations. The No Action Alternative does not meet the purpose and need for the Proposed Action, but serves as a baseline for comparison of the environmental effects of the action alternatives and cannot be eliminated from analysis under the CEQ NEPA regulations (40 CFR 1502.14(d)).

***Environmental Effects*:** The EA, incorporated here by reference, evaluated the potential effects of the Proposed Action alternatives on twelve areas of environmental resources, , and installation facilities and programs for the Proposed Action alternatives: 1) air quality, 2) biological resources, 3) water resources, 4) cultural resources, 5) hazardous and toxic materials and waste, 6) health and safety, 7) infrastructure and transportation, 8) land use, 9) noise, 10) geology and soils, 11) socioeconomics, and 12) cumulative impacts.

There would be potential short-term, minor impacts to all resources areas except land use and cumulative impacts under the Proposed Action. To mitigate impacts and ensure compliance, the following mitigations are required to support a FNSI for this Proposed Action:

Air Quality

- Implementation of fugitive emissions reduction practices

Biological Resources

- Implementation of construction BMPs
- Obtain a Water Quality Certification (CWA, Section 401) from ADEM
- Obtain dredge and fill permits (CWA, Section 404) from the USACE
- Use credits established in the wetlands mitigation bank established by RSA EMD
- Construct road in a "work-ahead" fashion, allowing construction activities from the existing and newly placed roadbeds to avoid placement of construction access roads in wetlands

Cultural Resources

For Alternatives 1 and 3, Subalternative 1:

- Implementation of MOA stipulations
- Hand excavation of a minimum of 20 percent of the impacted site
- Mechanically excavated deep trenches to further examine the geomorphology
- Detailed maps of the project area will be generated
- Clean, sort by artifact class, analyze, and inventory all artifacts from each provenience
- Catalog all artifacts, special samples, and associated paperwork
- Deliver for permanent curation all artifacts, special samples, and associated paperwork to the Erskine Ramsay Archaeological Repository in Moundville, Alabama

For Alternative 2, Subalternative 1:

- Same mitigations as above but only required in piling locations

For All Alternatives, Subalternative 2:

- Mitigation through Section 106 of the NHPA
- A Memorandum of Agreement developed in consultation with the ALSHPO, the consulting Native American Indian tribes, and other interested parties
- Implementation of Phase III data recovery plan for the site
- Construct road in a "work-ahead" fashion, allowing construction activities from the existing and newly placed roadbeds to avoid placement of construction access roads in wetlands

Hazardous and Toxic Materials and Waste

- Implementation of UXO Site Support requirements
- UXO and hazard training of site workers
- Use of 911 for inadvertent UXO discoveries
- No off-site transport of excavated materials
- Per MSFC, no disturbance to the OU-9 cap or to the OU-2 area
- Implementation of Army Regulation 385-100, *Safety Manual*, appropriate Occupational Safety and Health Administration (OSHA) regulations including CFR 29 Part 1926, Safety and Health Regulations for Construction and Site Specific Health and Safety Plans
- Regular, mandatory UXO safety briefings
- Coordination safety personnel prior to any work activity
- UXO awareness training (UXO anomaly avoidance or UXO construction support for all workers conducting any intrusive work
- Adherence to all protocols dictated in the *Program and Incident Response Plan for Munitions and Explosives of Concern (MEC), Chemical Warfare Material (CWM) and Chemical Agent (CA)*

Health and Safety

- As above

Noise

- Limit road construction activities to daylight hours only
- Use of hearing protection by personnel operating construction equipment

Geology and Soils

- Implementation of construction BMPs
- Rapid stabilization of disturbed areas
- Construct road in a "work-ahead" fashion, allowing construction activities from the existing and newly placed roadbeds to avoid placement of construction access roads in wetlands

Water Resources

Surface Water

- Utilize existing rights-of-way
- Implementation of construction BMPs
- Obtain a Water Quality Certification (CWA, Section 401) from ADEM
- Obtain dredge and fill permits (CWA, Section 404) from the USACE

Groundwater

- Appropriate management of groundwater encountered within MSFC boundaries as identified in documents completed between RSA and MSFC

Conclusion Based on the EA, it has been determined that the Proposed Action would have no significant direct, indirect, or cumulative impacts on the quality of the natural or human environment. Since no significant environmental impacts will result from the Proposed Action, an Environmental Impact Statement is not required and will not be prepared.

Public Comment The Draft FNSI and Final EA are available for review and comment for 30 days from the date of this statement. Copies may be obtained by contacting Ms. Kim Henry, US Army Garrison-Redstone Public Affairs Office, (256) 842-0558, ATTN: IMSE-RED-PA, Redstone Arsenal, Alabama 35898- 500 or by accessing the US Army Garrison-Redstone webpage at http://www.environmental.redstone.army.mil.. Comments should be submitted in writing to the address above.

DEPARTMENT OF THE ARMY
UNITED STATES ARMY GARRISON
REDSTONE ARSENAL, ALABAMA

DRAFT FINDING OF NO SIGNIFICANT IMPACT FOR THE ENVIRONMENTAL ASSESSMENT FOR THE WIDENING OF MARTIN ROAD FROM RIDEOUT ROAD TO ZIERDT ROAD AT REDSTONE ARSENAL, ALABAMA PREPARED JULY 2009

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